

NWS FORM E-5 <small>(11-88)</small> <small>(PRES. by NWS Instruction 10-924)</small>	U.S. DEPARTMENT OF COMMERCE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION NATIONAL WEATHER SERVICE	HYDROLOGIC SERVICE AREA (HSA) WFO Jackson, Mississippi
MONTHLY REPORT OF HYDROLOGIC CONDITIONS		REPORT FOR: MONTH YEAR July 2014
TO: Hydrometeorological Information Center, W/OH2 NOAA / National Weather Service 1325 East West Highway, Room 7230 Silver Spring, MD 20910-3283		SIGNATURE Alan E. Gerard, Meteorologist In-Charge DATE 08/25/2014

When no flooding occurs, include miscellaneous river conditions, such as significant rises, record low stages, ice conditions, snow cover, droughts, and hydrologic products issued (NWS Instruction 10-924)

X An X inside this box indicates that no river flooding occurred within this hydrologic service area.

Synopsis...

July was much below normal in a couple of aspects this year. First of all, every ASOS (Automatic Surface Observing System) station recorded much below normal average temperatures. Greenwood, Greenville, and Vicksburg actually recorded their coolest July ever, while Jackson had its 4th coolest and Hattiesburg had its 8th coolest. Meridian did not rank in the top 10. Secondly, the sites that had their top record-breaking coolest July were also the sites that had the most rainfall. Greenwood and Greenville recorded more than an inch and a half of rainfall above normal. Every other site recorded below normal rainfall. Vicksburg logged nearly three inches but was still just below normal.

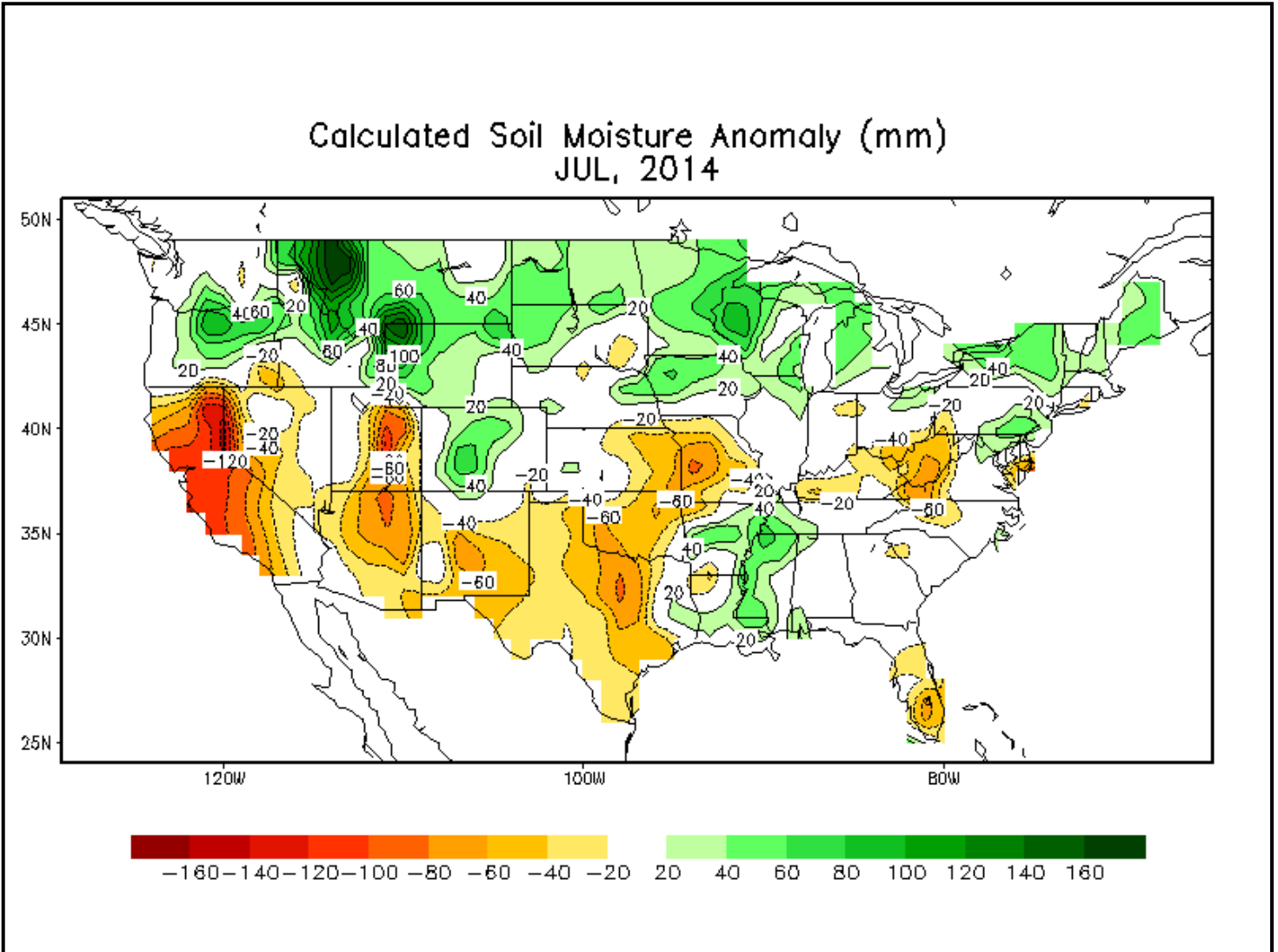
July didn't bring any rainfall until the 3rd when a cold front passed through the HSA (Hydrologic Service Area). This front brought scattered rainfall with max totals reaching 1.5 inches in isolated locations. The area was quiet again for the next week as high pressure settled over the Mississippi Valley. A front entered the HSA on the 9th, became stationary and then occupied the HSA from the 9th through the 12th. This brought scattered rainfall over the three day period, with isolated totals up to 3-4 inches.

The next cool front traversed through on the 15th and brought rainfall to the western half of the HSA, ranging from 0.50 to 2.5 inches. The front continued its trek through the rest of the HSA on the 16th and brought light to moderate rainfall, up to 0.5-0.75 inches, to the rest of the area. The front stalled along the coast late on the 16th and remained there through the day of the 17th. The boundary moved northward on the 18th as an upper low formed over southwestern Louisiana and then progressed northeastward through Mississippi on the 19th. On the 18th, up to two inches of rain fell in Northeast Louisiana and Southeast Arkansas and, on the 19th as the low moved aggressively through Mississippi, it brought three plus inches to northern counties of the HSA with widespread 0.50 inches to the rest of the forecast area. Along with the scattered rainfall, temperatures were kept below normal as northerly flow dominated the next few days.

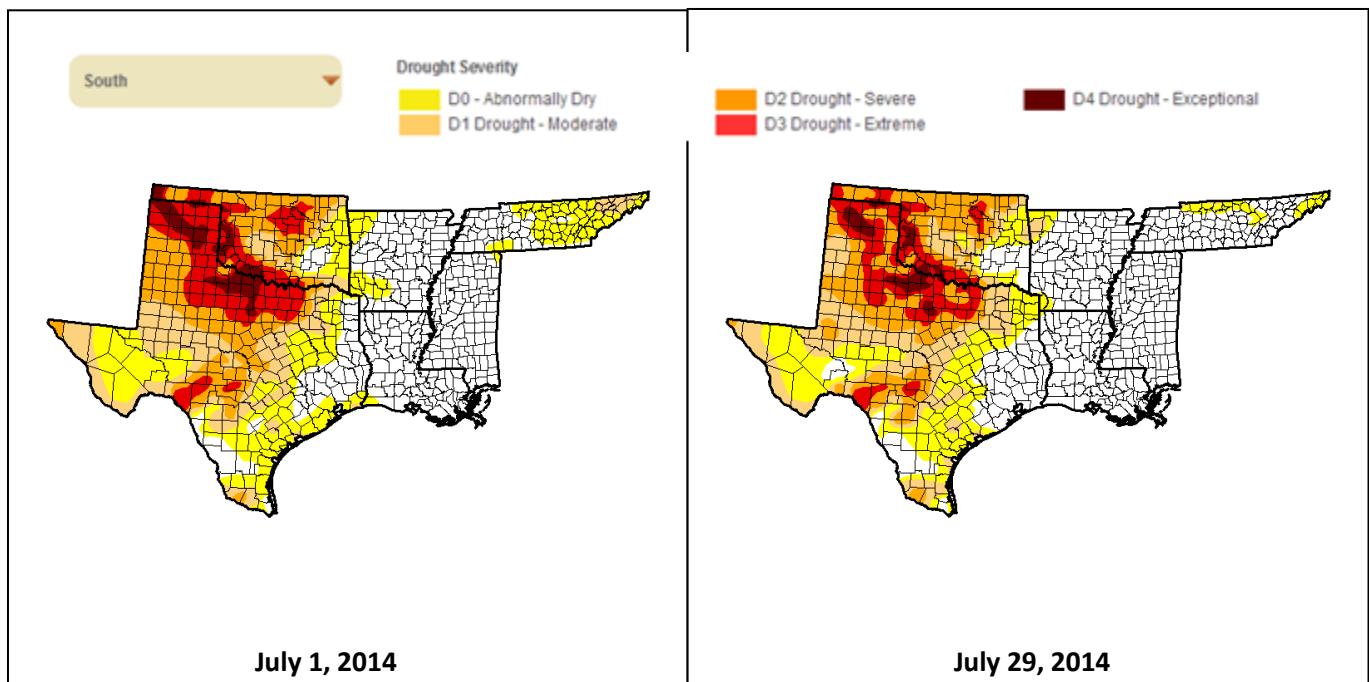
The next few days resulted in scattered showers, mostly in the southeast parts of Mississippi. On the 24th, a front approached the HSA from the northwest. It weakened and pushed into the northwest counties and parishes on the 25th. The front weakened even more on the 25th and ended up pushing back northward. This system did not affect the HSA much other than keep temperatures slightly below normal. The system which pushed through on the 28th however brought record breaking cool temperatures along with just a bit of rainfall, up to one inch in isolated locations again.

River and Soil Conditions...

Soil Moisture Map:

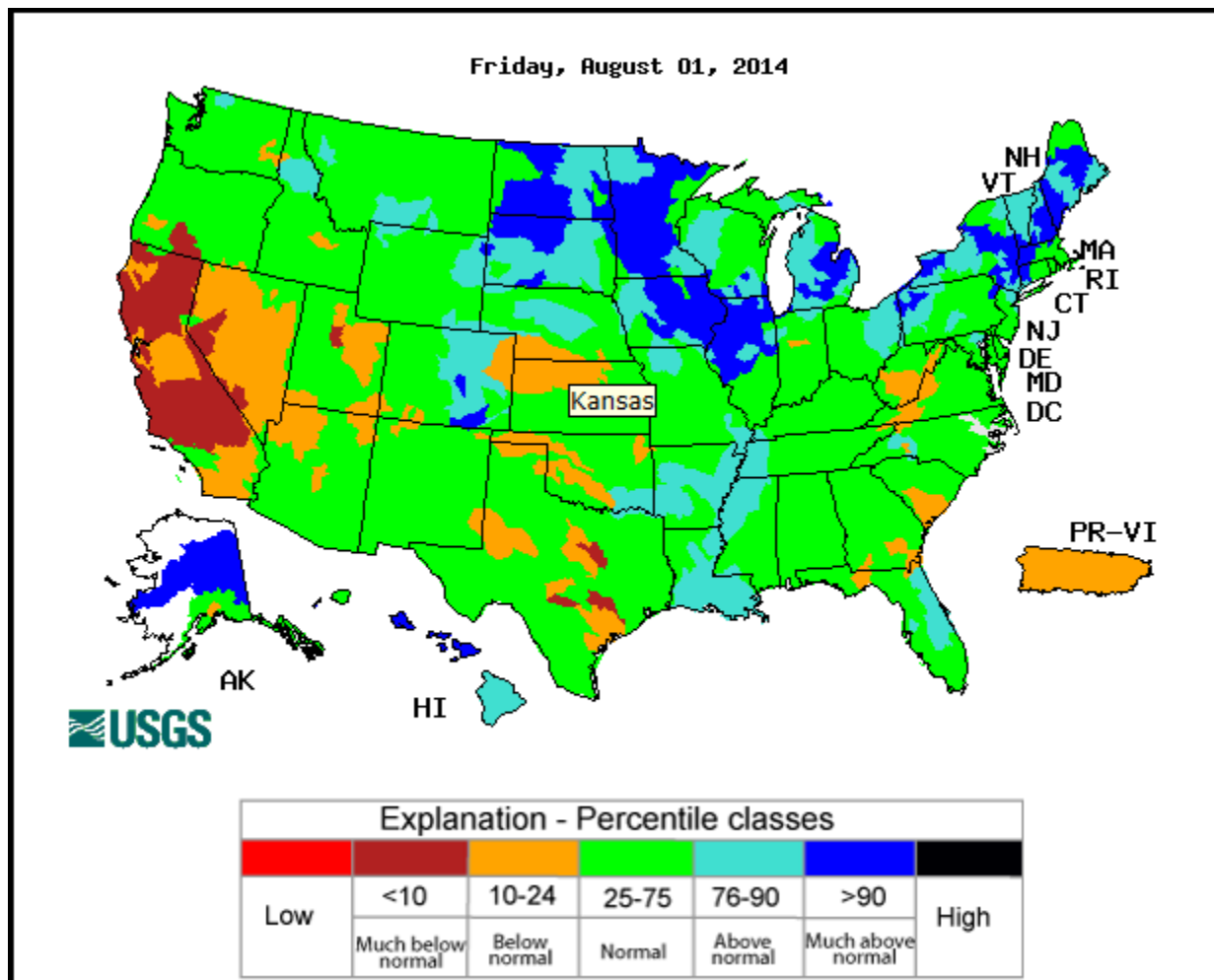


Drought Comparison:



Streamflow:

The United States Geological Survey's (USGS) July 2014 river streamflow records were compared with all historical July streamflow records. The July streamflow was above normal across much of Northeast Louisiana and the Yazoo River Basin. The remainder of the HSA had normal streamflow.



River Conditions:

No flooding occurred along the river systems in the HSA. For the conditions of the Mississippi River from Arkansas City to Natchez, refer to the hydrographs on the next page.

Climatic Outlook and Flood Potential:

The climatic outlook shows equal chances for above, below normal, or near normal rainfall and temperatures for the next 3 months. Therefore, based on current soil moisture, streamflow, and the 3-month weather outlook, the flood potentials are as follows:

Pearl River System: Average.

Yazoo River System: Average.

Big Black River System: Average.

Homochitto River System: Average.

Pascagoula River System: Average.

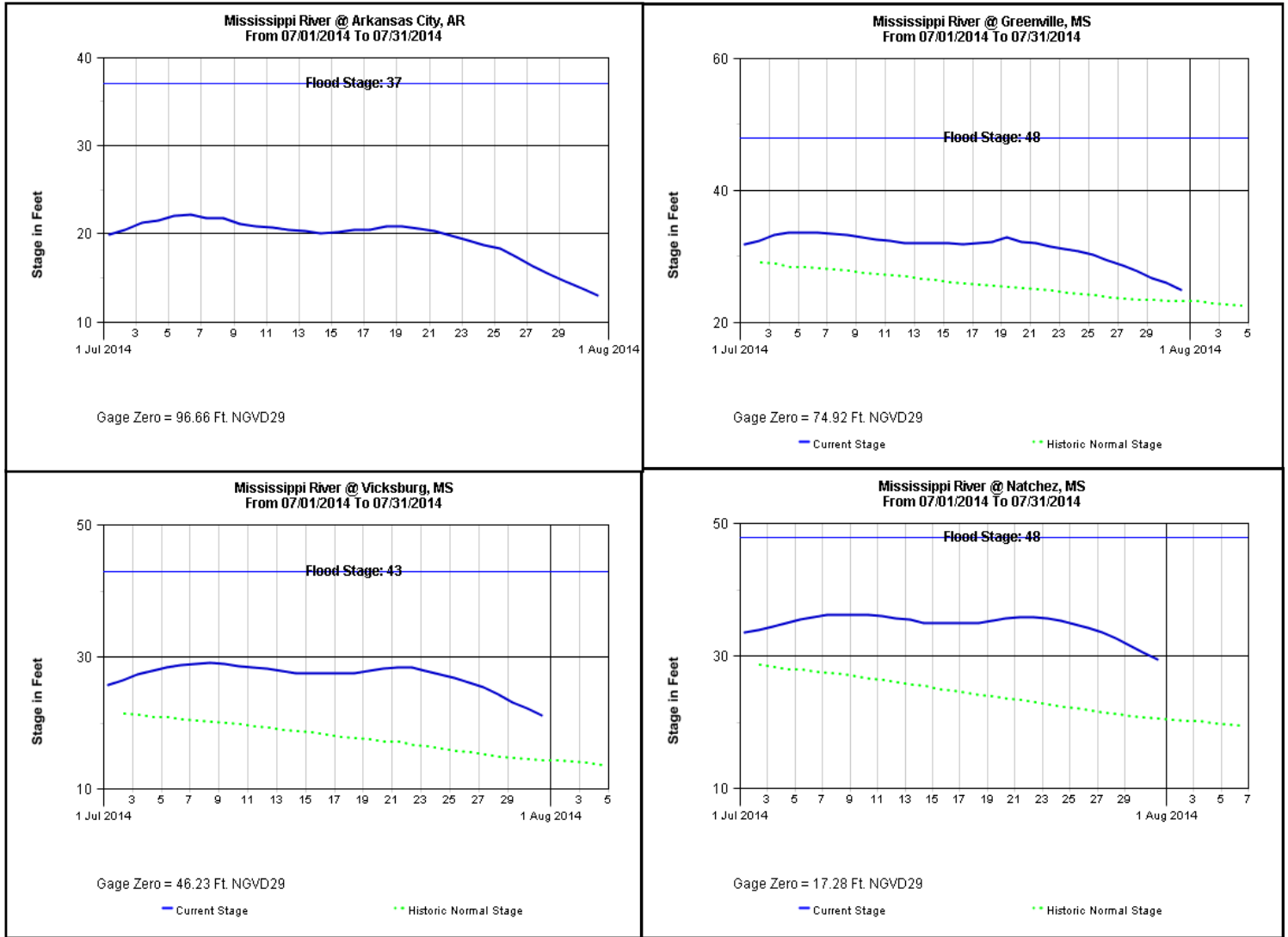
Northeast LA and Southeast AR: Average.

Tombigbee River System: Average.

Mississippi River: Average.

Mississippi River Plots July 2014

Plots Courtesy of the United States Army Corps of Engineers



Monthly Preliminary High and Low Stages:

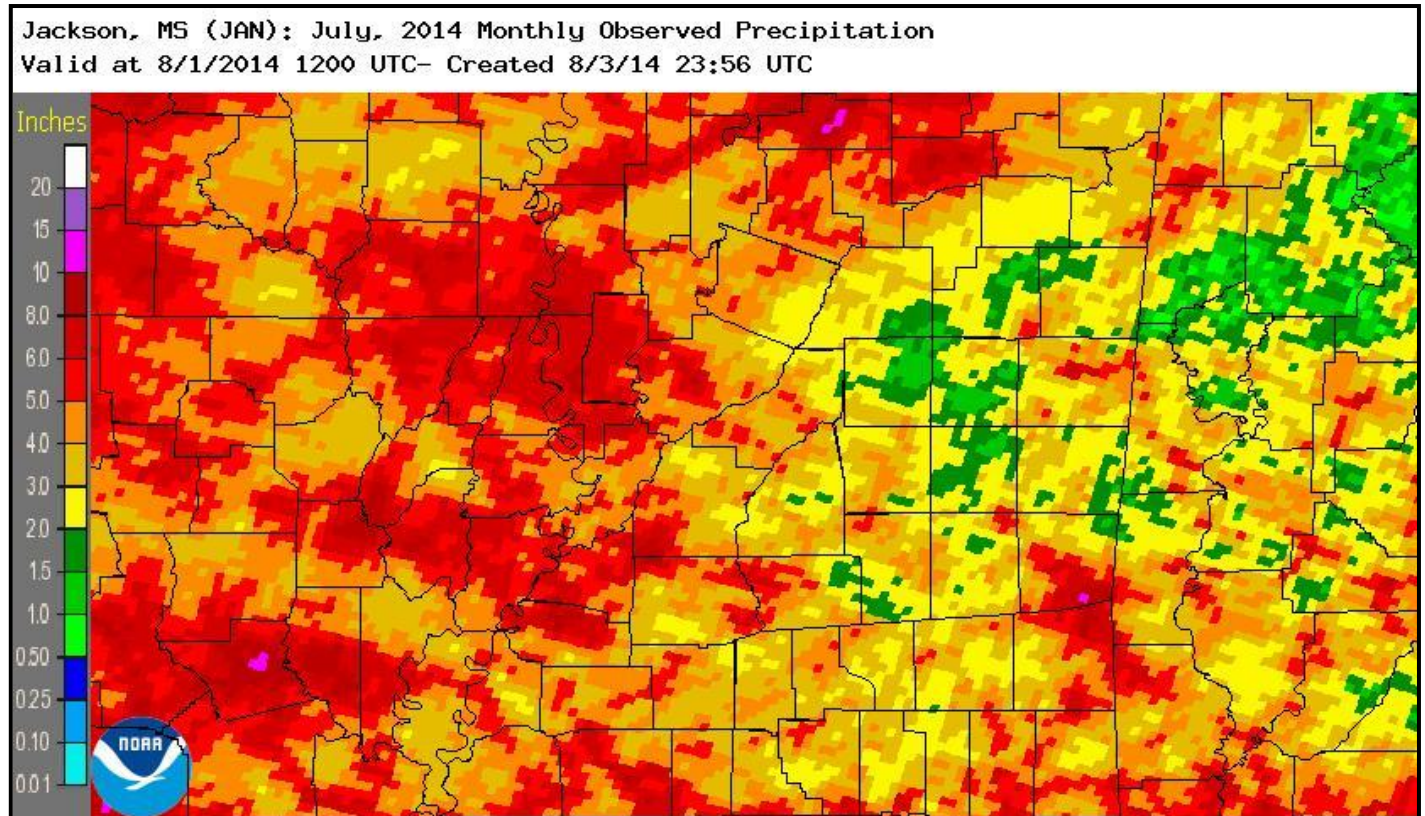
Location	Flood Stage (ft)	High Stage (ft)	Date	Low Stage (ft)	Date
Arkansas City	37	24.62	6/18	17.42	6/07
Greenville	48	33.70	7/04	25.04	7/31
Vicksburg	43	29.13	7/08	21.26	7/31
Natchez	48	36.36	7/08	29.51	7/31

Rainfall for the Month of July:

The largest rainfall amounts in the HSA from NWS Cooperative Observer reports during the period from 7 am on June 30th until 7 am on July 31st were:

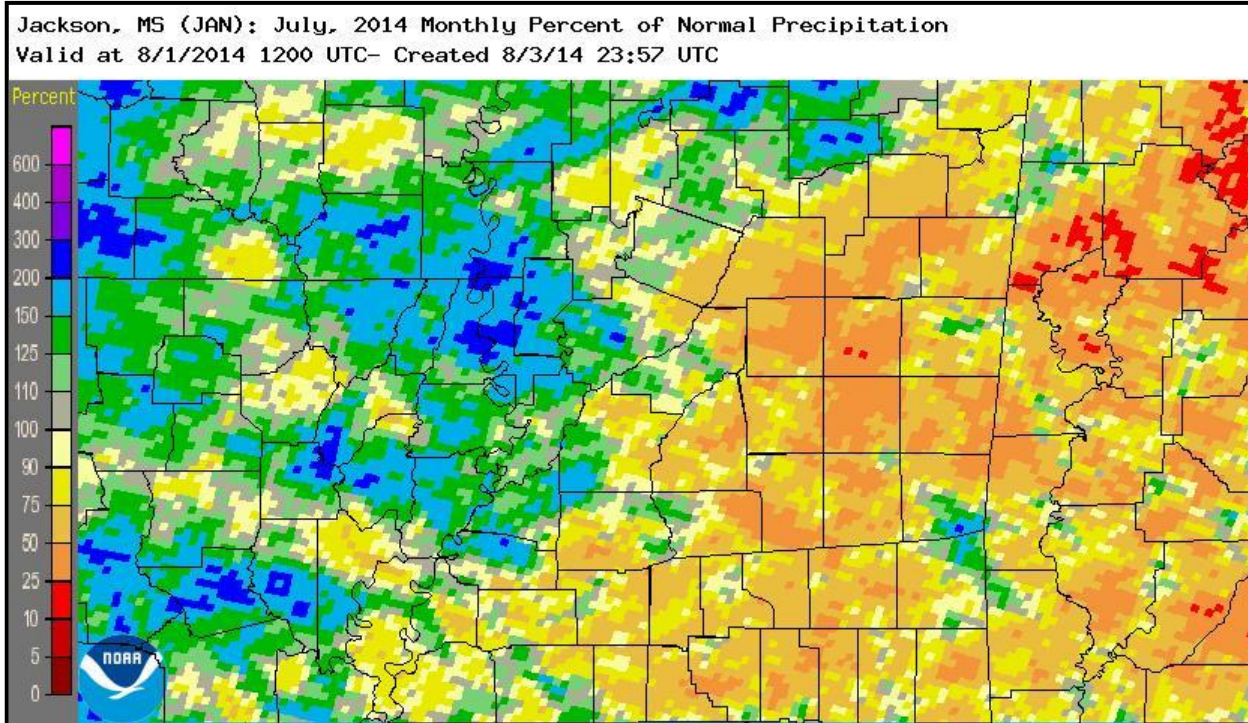
10.20 inches at Grenada, MS; 9.82 inches at Grenada Dam, MS; 8.18 inches at Winnsboro 5SE, LA; 7.69 inches at Rolling Fork, MS; 6.92 inches at Eupora, MS; 6.74 inches at Pat Harrison Waterway's Archusa WaterPark, MS; 6.33 inches at Pat Harrison Waterway's Big Creek Water Park, MS; 6.23 inches at Portland, AR; and 6.14 inches at Elliot, MS and Lake Providence, LA

July Rainfall Estimates:



Note: Observer rainfall and MPE may differ due to time differences.

July Percent of Normal Precipitation:



Note: Observer rainfall and MPE may differ due to time differences.

July Rainfall for Selected Cities:

City (Airport)	Rainfall	Departure from Normal	2014 Rainfall	2014 Departure from Normal
Jackson (KJAN)	2.14	-2.67	40.17	+7.13
Meridian (KMEI)	1.89	-3.25	36.15	+1.18
Greenville (KGLH)	5.32	+1.52	35.82	+3.72
Greenwood (KGWO)	5.59	+1.99	37.74	+6.50
Hattiesburg (KHBG)	2.26	-3.13	35.68	-1.75
Vicksburg (KTVR)	2.93	-0.70	37.81	+4.89

Total Flood Warning products issued: 0

Total Flood Statement products issued: 0

Total Flood Advisories MS River: 0

Daily Climate and Ag WX Products (AGO'S) issued: 31

Daily CoCoRaHS Rainfall Products (LCO'S) issued: 31

Daily River and Lake Summary Products (RVD'S) issued: 31

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Note: Provisional stage and precipitation data were furnished with the cooperation of the Mississippi, Louisiana, and Arkansas National Weather Service Cooperative Observer Programs, United States Geological Survey (USGS), United States Army Corps of Engineers (USACE), Pearl River Valley Water Supply District (PRVWSD), Pat Harrison Waterway District, Pearl River Basin Development District, and the Mississippi Department of Environmental Quality.

cc: USGS Little Rock District
USGS Ruston District
USACE Mobile District
USACE Vicksburg District
USACE Mississippi Valley Division
USGS Mississippi District
SRH Climate, Weather and Water Division
Lower Mississippi River Forecast Center
Pearl River Valley Water Supply District
Hydrologic Information Center
Southern Region Climate Center
Pat Harrison Waterway District
Pearl River Basin Development District